

Use Attainability Analysis

for

WBID 0132 Coon Creek

Submitted by  
Pickett Ray and Silver

To  
Missouri Department of Natural Resources  
Water Protection Program

Date Received: October 31, 2007

## **Field Data Sheets for Recreational Use Stream Surveys**

### **Data Sheet A – Water Body Identification**

#### **I. Water Body Information** (For water body being surveyed)

Water Body Name (from USGS 7.5' quad): Coon Creek	
Missouri Water Body Identification (WBID) Number: 132	
8-digit HUC: 7110006	County: Monroe
Upstream Legal Description (from Table H): 8,53N,13W	
Downstream Legal Description (from Table H): Mouth	
Number of sites evaluated: 5	
List all sites numbers, listed consequently upstream to downstream: 132-1, 132-5, 132-2, 132-3, 132-4	

**Site Locations Map(s):** Attach a map of the entire segment with assessment sites clearly labeled. Mark any other items that may be of interest.

#### **II. Facility Information** (list all permitted discharges to the water body segment)

Facility Name(s) and Permit Number(s): Renick WWTF MO 0104019
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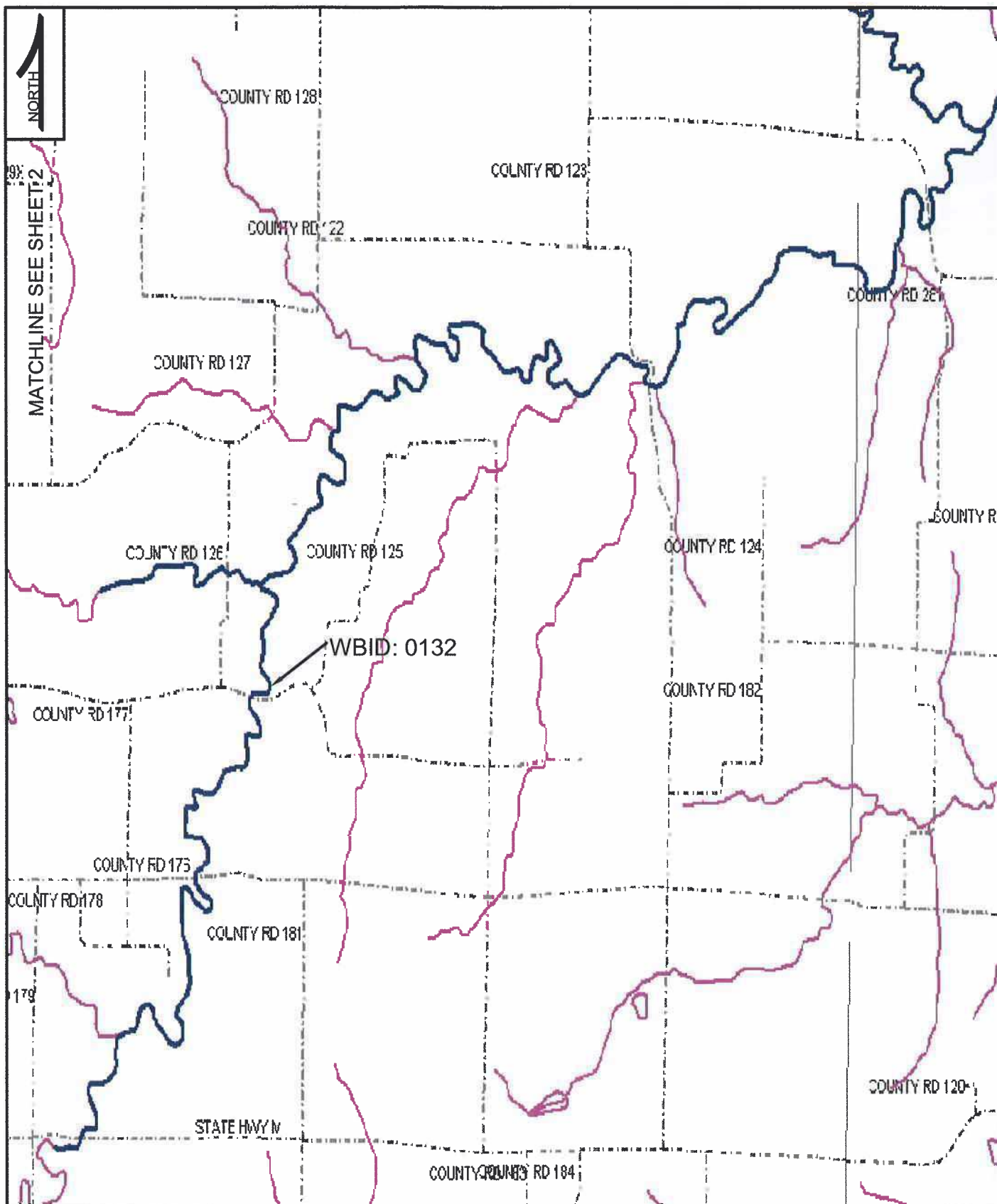
#### **III. UAA Surveyor** (please print legibly)

Name of Surveyor	Matt Cosby	Telephone Number: 636-397-1211
Organization/Employer: Pickett, Ray & Silver, Inc.		

**Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.**

**Signed:** \_\_\_\_\_ **Date:** \_\_\_\_\_

\\3serverprps\Projects\07031\dwg\07031\_MODN\_01E\0132 Coon Creekdwg, 10/26/2007 1:58:58 PM, 1:2000, MATT COSBY



## PICKETT RAY & SILVER

Civil Engineers Land Surveyors Natural Resources

Address: 333 Mid Rivers Mall Drive  
St. Peters, Missouri 63376  
Phone: (636)397-1211  
Fax: (636)397-1104  
Website: www.prs3.com

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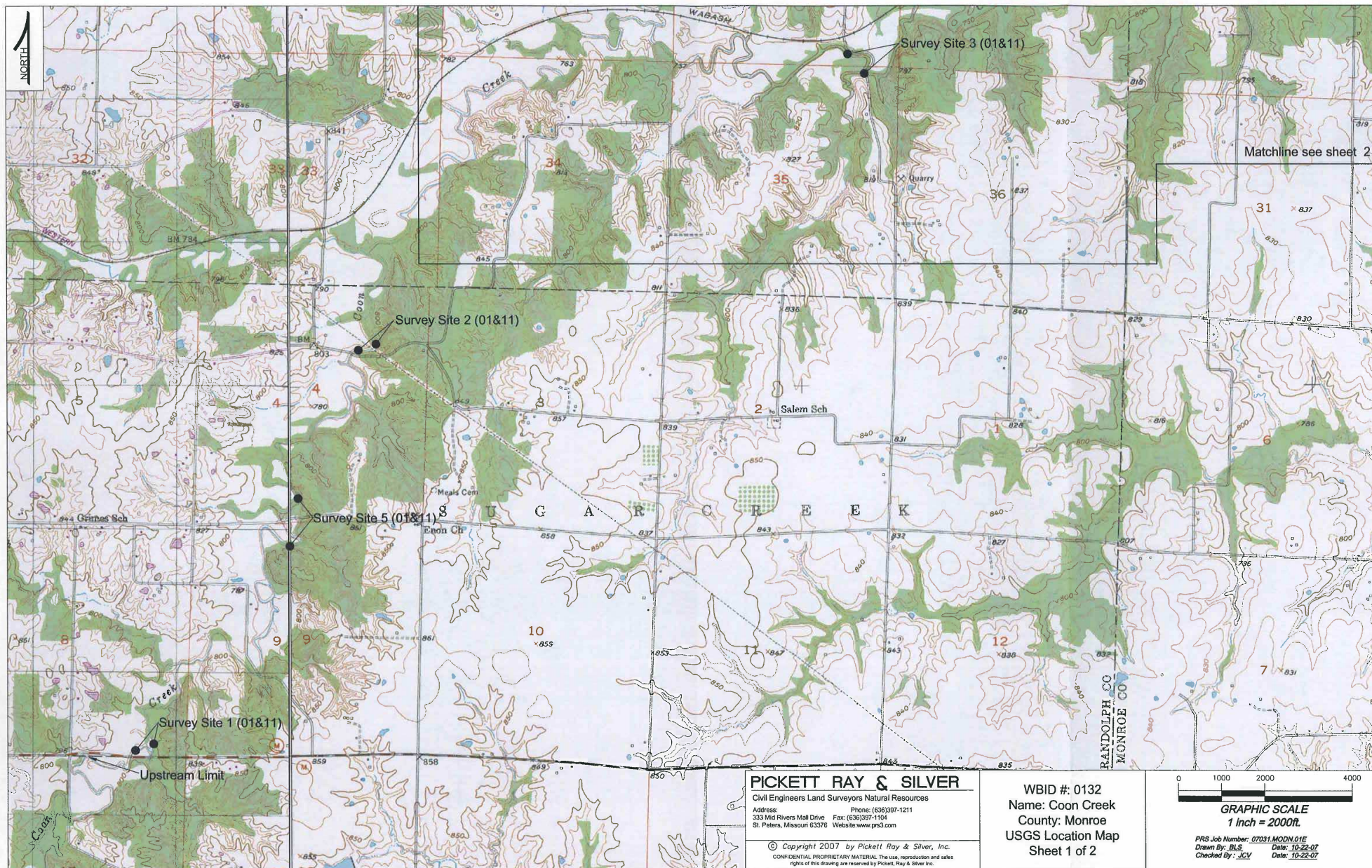
WBID #: 0132  
Name: Coon Creek  
County: Monroe  
GIS Location Map

Sheet 1 of 1

PRS Job Number: 07031.MODN.01E  
Drawn By: BLS Date: 10-22-07  
Checked By: JCV Date: 10-22-07



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**PICKETT RAY & SILVER**

Civil Engineers Land Surveyors Natural Resources

Address: 333 Mid Rivers Mall Drive  
St. Peters, Missouri 63376

Phone: (636)397-1211

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WBID #: 0132  
Name: Coon Creek  
County: Monroe  
USGS Location Map  
Sheet 1 of 2

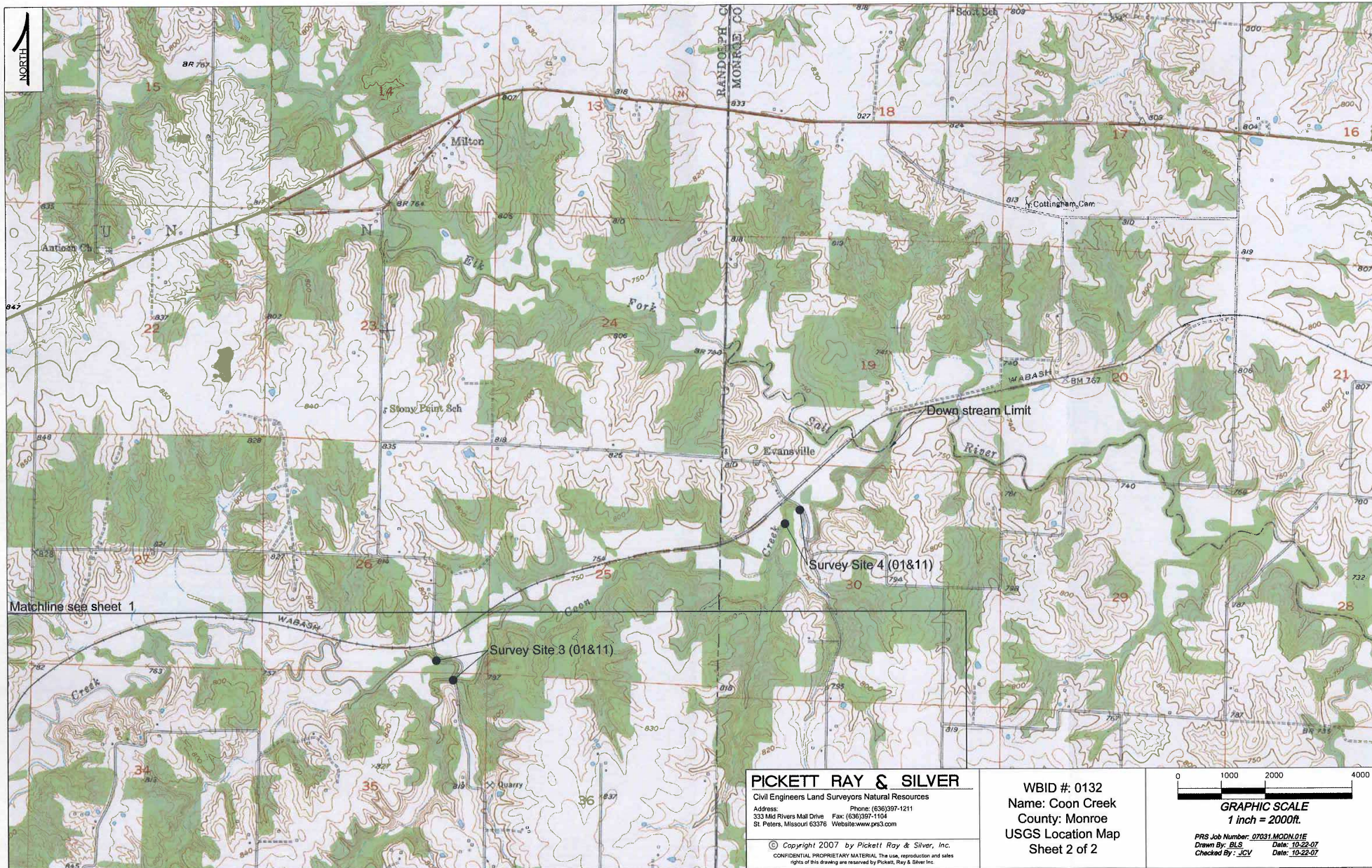


**GRAPHIC SCALE**  
1 inch = 2000ft.

PRS Job Number: 07031 MODN.01E  
Drawn By: BLS Date: 10-22-07  
Checked By: JCV Date: 10-22-07



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**Field Data Sheets for Recreational Use Stream Surveys****Data Sheet B – Site Characterization**

(must be completed for each site)

Date & Time: 10/17/07 11AM	Site Location Description (e.g., road crossing): Downstream of road crossing Highway M
Personnel (Data Collectors): Matt Cosby, Lauren Strange	
Current Weather Conditions: Cloudy 60°	Facility Name: Renick WWTF
Weather Conditions for Past 10 days: 4.29 inches of rain	Permit Number: MO 0104019
Drought Conditions?: No drought <input type="checkbox"/> ; Phase I x; Phase II <input type="checkbox"/> ; Phase III <input type="checkbox"/> ; Phase IV <input type="checkbox"/> ; Unknown <input type="checkbox"/>	

**Site Location:**

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)			
Site 01	Easting (UTM X): 552671m	Northing (UTM Y): 4360674m	Horizontal Accuracy: 6.6 <b>PDOP</b>
Site 11	Easting (UTM X): 552829m	Northing (UTM Y): 4360668m	Horizontal Accuracy: 6.5 <b>PDOP</b>

**Photos: See attached photos and descriptions**

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose

**Uses Observed\*:** (Uses actually observed at time of survey.)

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (Include number of individuals recreating, photo-documentation of evidence of recreational uses, etc. Use <i>Data Sheet D- Recreational Use Interview</i> when conducting interviews.)				

**Field Data Sheets for Recreational Use Stream Surveys****Data Sheet B – Site Characterization (continued)****Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Rural Residential
<input type="checkbox"/> Campgrounds	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> Fence	<input type="checkbox"/> No trespass sign	<input checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:
Comments: None				

**Evidence of Human Use\*:** (Attach photos and reference in "Photos" section)

<input type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Rope swings
<input type="checkbox"/> RV / ATV Tracks	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle	<input type="checkbox"/> Livestock Watering
Comments / Other:				

**Substrate\*:** (These values should add up to 100%.)

% Cobble	20% Gravel	10% Sand	10% Silt	60% Mud/Clay	% Bedrock
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**Aquatic Vegetation\*:** (Note amount of vegetation or algal growth at the assessment site)

None
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**Water Characteristics\*:** (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Other: Sulfur
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input checked="" type="checkbox"/> Gray	<input checked="" type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input checked="" type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

**Field Data Sheets for Recreational Use Stream Surveys****Data Sheet B – Site Characterization (continued)****Additional Stream Morphology:** (Record isolated pools or other features identified during the survey that may support recreational uses)

Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)

**Comments:** (Please record any additional comments here.)

**Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.**

Surveyor's Signature: \_\_\_\_\_ Date of Survey: 10/17/07

Organization: Pickett, Ray & Silver, Inc. Position: Field Team Leader



# Field Data Sheets for Recreational Use Stream Surveys

## Data Sheet C - Field Survey Results

Waterbody ID: <u>132</u> Site #: <u>1</u>  Estimated Channel Incision: <u>0.2</u> (m) (height between low bank width and water)  GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate <b>PDOP</b> <b>01</b> UTM X: <u>552671m</u> UTM Y: <u>4360674m</u> <u>6.6</u> <b>11</b> UTM X: <u>552829m</u> UTM Y: <u>4360668m</u> <u>6.5</u>  Average Stream Width: <u>4</u> (meters)      Length of Survey Segment: <u>150</u> (meters) (To determine Length of Reach)      (20x average stream width)  Field Staff: <u>Matt Cosby &amp; Lauren Strange</u>														Dissolved Oxygen								
														Date: <u>10/17/07</u> Time: <u>11:00 am</u>								
														Dissolved Oxygen: <u>7.15</u> (mg/L)								
														Dissolved Oxygen: _____ (% sat)								
														Specific Cond: _____ (µS/cm)								
														Water Temperature: <u>13.7</u> (°C)								
Transect Cross-Section																						
01		02		03		04		05		06		07		08		09		10		11		
Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1	0.47	0.12	0.46	0.21	0.31	0.14	0.16	0.08	0.45	0.14	0.48	0.29		>1		>1	0.35	0.21		>1		>1
2	0.94	0.10	0.92	0.38	0.62	0.19	0.32	0.17	0.90	0.23	0.96	0.36					0.70	0.27				
3	1.4	0.11	1.4	0.42	0.93	0.27	0.48	0.18	1.4	0.24	1.4	0.36					1.1	0.23				
4	1.9	0.09	1.8	0.42	1.2	0.31	0.64	0.21	1.8	0.21	1.9	0.37					1.4	0.28				
5	2.4	0.09	2.3	0.37	1.6	0.30	0.80	0.16	2.3	0.15	2.4	0.61					1.8	0.17				
6	2.8	0.10	2.8	0.29	1.9	0.21	0.96	0.14	2.7	0.13	2.9	0.71					2.1	0.13				
7	3.3	0.10	3.2	0.24	2.2	0.22	1.1	0.10	3.2	0.10	3.4	0.75					2.5	0.09				
8	3.8	0.15	3.7	0.21	2.5	0.14	1.3	0.06	3.6	0.06	3.8	0.51					2.8	0.08				
9	4.2	0.16	4.1	0.14	2.8	0.08	1.4	0.02	4.1	0.01	4.3	0.43					3.2	0.16				
Right Bank	4.7	0	4.6	0	3.1	0	1.6	0	4.5	0	4.8	0	5	0	5	0	3.5	0		0		0
Feature Type	Pool		Run		Run		Pool		Run		Run		Pool		Pool		Run		Pool		Pool	

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

**Field Data Sheets for Recreational Use Stream Surveys****Data Sheet B – Site Characterization**

(must be completed for each site)

Date & Time: 10/17/07 12:00 pm	Site Location Description (e.g., road crossing): Downstream of road crossing at Hwy EE.
Personnel (Data Collectors): Matt Cosby, Lauren Strange	
Current Weather Conditions: Cloudy 60°	Facility Name: Renick WWTF
Weather Conditions for Past 10 days: 4.29 inches of rain	Permit Number: MO 0104019
Drought Conditions?: No drought <input type="checkbox"/> ; Phase I x; Phase II <input type="checkbox"/> ; Phase III <input type="checkbox"/> ; Phase IV <input type="checkbox"/> ; Unknown <input type="checkbox"/>	

**Site Location:**

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)			
Site 01	Easting (UTM X): 554265m	Northing (UTM Y): 4363483m	Horizontal Accuracy: 3.8 <b>PDOP</b>
Site 11	Easting (UTM X): 554395m	Northing (UTM Y): 4363516m	Horizontal Accuracy: 4.9 <b>PDOP</b>

**Photos: See attached photos and descriptions**

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose

**Uses Observed\*:** (Uses actually observed at time of survey.)

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (Include number of individuals recreating, photo-documentation of evidence of recreational uses, etc. Use <i>Data Sheet D- Recreational Use Interview</i> when conducting interviews.)				

**Field Data Sheets for Recreational Use Stream Surveys****Data Sheet B – Site Characterization (continued)****Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Rural Residential
<input type="checkbox"/> Campgrounds	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> Fence	<input type="checkbox"/> No trespass sign	<input checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:
Comments: None				

**Evidence of Human Use\*:** (Attach photos and reference in "Photos" section)

<input type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Rope swings
<input type="checkbox"/> RV / ATV Tracks	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle	<input type="checkbox"/> Livestock Watering
Comments / Other:				

**Substrate\*:** (These values should add up to 100%.)

% Cobble	10% Gravel	% Sand	% Silt	80% Mud/Clay	10% Bedrock
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**Aquatic Vegetation\*:** (Note amount of vegetation or algal growth at the assessment site)

None
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**Water Characteristics\*:** (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Other: Sulfur
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input checked="" type="checkbox"/> Gray	<input checked="" type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.



**Field Data Sheets for Recreational Use Stream Surveys****Data Sheet B – Site Characterization (continued)****Additional Stream Morphology:** (Record isolated pools or other features identified during the survey that may support recreational uses)

Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)

**Comments:** (Please record any additional comments here.)

**Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.**

Surveyor's Signature: \_\_\_\_\_ Date of Survey: 10/17/07Organization: Pickett, Ray & Silver, Inc. Position: Field Team Leader

# Field Data Sheets for Recreational Use Stream Surveys

## Data Sheet C - Field Survey Results

Waterbody ID: <u>132</u> Site #: <u>2</u>  Estimated Channel Incision: <u>1.0</u> (m) (height between low bank width and water)  GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate <b>PDOP</b> <b>01</b> UTM X: <u>554265m</u> UTM Y: <u>4363483m</u> <u>3.8</u> <b>11</b> UTM X: <u>554395m</u> UTM Y: <u>4363516m</u> <u>4.9</u>  Average Stream Width: <u>6</u> (meters)      Length of Survey Segment: <u>150</u> (meters) (To determine Length of Reach)      (20x average stream width)  Field Staff: <u>Matt Cosby &amp; Lauren Strange</u>														Dissolved Oxygen								
Date: <u>10/17/07</u> Time: <u>12:00 pm</u>  Dissolved Oxygen: <u>6.02</u> (mg/L)  Dissolved Oxygen: _____ (% sat)  Specific Cond: _____ (µS/cm)  Water Temperature: <u>13.9</u> (°C)																						
Transect Cross-Section																						
01		02		03		04		05		06		07		08		09		10		11		
Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1	0.32	0.20		>1	0.42	0.05		>1	0.53	0.05		>1	0.60	0.06		>1		>1		>1	0.40	0.09
2	0.64	0.27			0.84	0.11			1.10	0.11			1.2	0.17							0.80	0.14
3	0.96	0.36			1.3	0.14			1.6	0.20			1.8	0.26							1.2	0.15
4	1.3	0.45			1.7	0.19			2.1	0.31			2.4	0.34							1.6	0.15
5	1.6	0.49			2.1	0.17			2.7	0.44			3.0	0.35							2.0	0.16
6	2.0	0.47			2.5	0.15			3.2	0.46			3.6	0.32							2.4	0.14
7	2.2	0.29			2.9	0.15			3.7	0.51			4.2	0.14							2.8	0.13
8	2.6	0.14			3.4	0.13			4.2	0.43			4.8	0.16							3.2	0.10
9	2.9	0.07			3.8	0.16			4.8	0.35			5.4	0.11							3.6	0.05
Right Bank	3.2	0	6	0	4.2	0	6	0	5.3	0	7	0	6.0	0	8	0	8	0	8	0	4.0	0
Feature Type	Run		Pool		Run		Pool		Run		Pool		Run		Run		Run		Run		Riffle	

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

**Field Data Sheets for Recreational Use Stream Surveys****Data Sheet B – Site Characterization**

(must be completed for each site)

Date & Time: 10/17/07 1:00 pm	Site Location Description (e.g., road crossing): Upstream of road crossing at 2380
Personnel (Data Collectors): Matt Cosby, Lauren Strange	
Current Weather Conditions: Cloudy 60°	Facility Name: Renick WWTF
Weather Conditions for Past 10 days: 4.29 inches of rain	Permit Number: MO 0104019
Drought Conditions?: No drought <input type="checkbox"/> ; Phase I x; Phase II <input type="checkbox"/> ; Phase III <input type="checkbox"/> ; Phase IV <input type="checkbox"/> ; Unknown <input type="checkbox"/>	

**Site Location:**

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)			
Site 01	Easting (UTM X): 557653m	Northing (UTM Y): 4365578m	Horizontal Accuracy: 3.4 <b>PDOP</b>
Site 11	Easting (UTM X): 557792m	Northing (UTM Y): 4365413m	Horizontal Accuracy: 6.6 <b>PDOP</b>

**Photos: See attached photos and descriptions**

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose

**Uses Observed\*:** (Uses actually observed at time of survey.)

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (Include number of individuals recreating, photo-documentation of evidence of recreational uses, etc. Use <i>Data Sheet D- Recreational Use Interview</i> when conducting interviews.)				



**Field Data Sheets for Recreational Use Stream Surveys****Data Sheet B – Site Characterization (continued)****Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Rural Residential
<input type="checkbox"/> Campgrounds	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> Boating accesses	<input checked="" type="checkbox"/> Fence	<input type="checkbox"/> No trespass sign	<input checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:
Comments: None				

**Evidence of Human Use\*:** (Attach photos and reference in "Photos" section)

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Rope swings
<input type="checkbox"/> RV / ATV Tracks	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle	<input type="checkbox"/> Livestock Watering
Comments / Other:				

**Substrate\*:** (These values should add up to 100%.)

10% Cobble	% Gravel	20% Sand	10 % Silt	60% Mud/Clay	% Bedrock
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**Aquatic Vegetation\*:** (Note amount of vegetation or algal growth at the assessment site)

None
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**Water Characteristics\*:** (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input checked="" type="checkbox"/> Gray	<input checked="" type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input checked="" type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

**Field Data Sheets for Recreational Use Stream Surveys****Data Sheet B – Site Characterization (continued)****Additional Stream Morphology:** (Record isolated pools or other features identified during the survey that may support recreational uses)

Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)

**Comments:** (Please record any additional comments here.)

**Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.**

Surveyor's Signature: \_\_\_\_\_ Date of Survey: 10/17/07

Organization: Pickett, Ray & Silver, Inc. Position: Field Team Leader

# Field Data Sheets for Recreational Use Stream Surveys

## Data Sheet C - Field Survey Results

Waterbody ID: <u>132</u> Site #: <u>3</u>  Estimated Channel Incision: <u>0</u> (m) (height between low bank width and water)  GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate <b>PDOP</b> <b>01</b> UTM X: <u>557653m</u> UTM Y: <u>4365578m</u> <u>3.4</u> <b>11</b> UTM X: <u>557792m</u> UTM Y: <u>4365413m</u> <u>6.6</u>  Average Stream Width: <u>10</u> (meters)      Length of Survey Segment: <u>200</u> (meters) (To determine Length of Reach)                      (20x average stream width)  Field Staff: <u>Matt Cosby &amp; Lauren Strange</u>														Dissolved Oxygen								
														Date: <u>10/17/07</u> Time: <u>1:00 pm</u>  Dissolved Oxygen: <u>7.57</u> (mg/L)  Dissolved Oxygen: _____ (% sat)  Specific Cond: _____ (µS/cm)  Water Temperature: <u>15.4</u> (°C)								
Transect Cross-Section																						
01		02		03		04		05		06		07		08		09		10		11		
Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1	0.92	0.61	0.94	0.49	1.1	0.71	1.1	0.30	0.9	0.11	>1	1.10	0.26	>1		>1		0.94	0.26		>1	
2	1.8	0.62	1.9	0.31	2.2	0.51	2.2	0.24	1.80	0.04		2.2	0.40					1.9	0.21			
3	2.8	0.60	2.8	0.32	3.4	0.18	3.3	0.26	2.7	0.05		3.4	0.14					2.8	0.15			
4	3.7	0.56	3.8	0.36	4.5	0.14	4.4	0.31	3.6	0.10		4.5	0.16					3.8	0.13			
5	4.6	0.55	4.7	0.43	5.6	0.21	5.6	0.32	4.5	0.12		5.6	0.21					4.7	0.11			
6	5.5	0.52	5.6	0.50	6.7	0.33	6.7	0.37	5.4	0.07		6.7	0.09					5.6	0.15			
7	6.4	0.42	6.6	0.51	7.8	0.45	7.8	0.37	6.3	0.04		7.8	0					6.6	0.16			
8	7.4	0.38	7.5	0.42	9.0	0.51	8.9	0.40	7.2	0.03		9.0	0.37					7.5	0.21			
9	8.3	0.24	8.5	0.31	10.0	0.50	10	0.34	8.1	0.01		10.1	0.52					8.5	0.29			
Right Bank	9.2	0	9.4	0	11.2	0	11.1	0	9.0	0	6.2	0	11.2	0	10	0	10	0	9.4	0	10	0
Feature Type	Run		Run		Run		Run		Riffle		Pool		Run		Run		Run		Run		Pool	

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.



**Field Data Sheets for Recreational Use Stream Surveys****Data Sheet B – Site Characterization**

(must be completed for each site)

Date & Time: 10/17/07 2:20 pm	Site Location Description (e.g., road crossing): Upstream of road crossing at YY
Personnel (Data Collectors): Matt Cosby, Lauren Strange	
Current Weather Conditions: Cloudy 60°	Facility Name: Renick WWTF
Weather Conditions for Past 10 days: 4.29 inches of rain	Permit Number: MO 0104019
Drought Conditions?: No drought <input type="checkbox"/> ; Phase I x; Phase II <input type="checkbox"/> ; Phase III <input type="checkbox"/> ; Phase IV <input type="checkbox"/> ; Unknown <input type="checkbox"/>	

**Site Location:**

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)			
Site 01	Easting (UTM X): 560111m	Northing (UTM Y): 4366494m	Horizontal Accuracy: 5.1 <b>PDOP</b>
Site 11	Easting (UTM X): 560242m	Northing (UTM Y): 4366605m	Horizontal Accuracy: 7.5 <b>PDOP</b>

**Photos: See attached photos and descriptions**

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose

**Uses Observed\*:** (Uses actually observed at time of survey.)

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (Include number of individuals recreating, photo-documentation of evidence of recreational uses, etc. Use <i>Data Sheet D- Recreational Use Interview</i> when conducting interviews.)				

**Field Data Sheets for Recreational Use Stream Surveys****Data Sheet B – Site Characterization (continued)****Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Rural Residential
<input type="checkbox"/> Campgrounds	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> Boating accesses	<input checked="" type="checkbox"/> Fence	<input type="checkbox"/> No trespass sign	<input checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:
Comments: None				

**Evidence of Human Use\*:** (Attach photos and reference in "Photos" section)

<input type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Rope swings
<input type="checkbox"/> RV / ATV Tracks	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle	<input checked="" type="checkbox"/> Livestock Watering
Comments / Other:				

**Substrate\*:** (These values should add up to 100%.)

% Cobble	50% Gravel	20% Sand	% Silt	30% Mud/Clay	% Bedrock
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**Aquatic Vegetation\*:** (Note amount of vegetation or algal growth at the assessment site)

None
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**Water Characteristics\*:** (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Other: cow excrement
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input checked="" type="checkbox"/> Gray	<input checked="" type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input checked="" type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

**Field Data Sheets for Recreational Use Stream Surveys****Data Sheet B – Site Characterization (continued)****Additional Stream Morphology:** (Record isolated pools or other features identified during the survey that may support recreational uses)

Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)

**Comments:** (Please record any additional comments here.)

**Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.**

Surveyor's Signature: \_\_\_\_\_ Date of Survey: 10/17/07

Organization: Pickett, Ray & Silver, Inc. Position: Field Team Leader

# Field Data Sheets for Recreational Use Stream Surveys

## Data Sheet C - Field Survey Results

Waterbody ID: <u>132</u> Site #: <u>4</u> Estimated Channel Incision: <u>0</u> (m) (height between low bank width and water) GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate <b>PDOP</b> <b>01</b> UTM X: <u>560111m</u> UTM Y: <u>4366494m</u> <u>5.1</u> <b>11</b> UTM X: <u>560242m</u> UTM Y: <u>4366605m</u> <u>7.5</u> Average Stream Width: <u>8</u> (meters)      Length of Survey Segment: <u>160</u> (meters) (To determine Length of Reach)      (20x average stream width) Field Staff: <u>Matt Cosby &amp; Lauren Strange</u>														<b>Dissolved Oxygen</b> Date: <u>10/17/07</u> Time: <u>2:20 pm</u> Dissolved Oxygen: <u>8.08</u> (mg/L) Dissolved Oxygen: _____ (% sat) Specific Cond: _____ (µS/cm) Water Temperature: <u>14.7</u> (°C)									
<b>Transect Cross-Section</b>																							
		<b>01</b>		<b>02</b>		<b>03</b>		<b>04</b>		<b>05</b>		<b>06</b>		<b>07</b>		<b>08</b>		<b>09</b>		<b>10</b>		<b>11</b>	
Station		Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)		
<b>Left Bank</b>		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1		0.48	0.12	0.51	0.31		>1	0.74	0.32	0.82	0.14	0.57	0.04	0.61	0.12	0.57	0.40	0.64	0.13	0.78	0.32	0.81	0.20
2		0.96	0.14	1.0	0.44			1.5	0.54	1.6	0.10	1.1	0.04	1.2	0.21	1.1	0.50	1.3	0.21	1.6	0.30	1.60	0.14
3		1.4	0.08	1.5	0.40			2.2	0.68	2.5	0.06	1.7	0.06	1.8	0.24	1.7	0.44	1.9	0.47	2.3	0.31	2.4	0.11
4		1.9	0.09	2.0	0.32			3.0	0.57	3.3	0	2.3	0.10	2.4	0.38	2.3	0.35	2.6	0.51	3.1	0.34	3.2	0.08
5		2.4	0.06	2.6	0.31			3.7	0.61	4.1	0	2.9	0.13	3.1	0.50	2.9	0.33	3.2	0.48	3.9	0.27	4.1	0.10
6		2.9	0.07	3.1	0.20			4.4	0.60	4.9	0.04	3.4	0.12	3.7	0.54	3.4	0.31	3.8	0.46	4.7	0.22	4.9	0.12
7		3.4	0.06	3.6	0.17			5.2	0.64	5.7	0.06	4.0	0.15	4.3	0.61	4.0	0.23	4.5	0.35	5.5	0.16	5.7	0.13
8		3.8	0	4.1	0.15			5.9	0.60	6.6	0.06	4.6	0.12	4.9	0.58	4.6	0.20	5.1	0.28	6.2	0.16	6.5	0.08
9		4.3	0.03	4.6	0.11			6.7	0.65	7.4	0.09	5.1	0.10	5.5	0.44	5.1	0.12	5.8	0.18	7.0	0.15	7.3	0.05
<b>Right Bank</b>		4.8	0	5.1	0	7	0	7.4	0	8.2	0	5.7	0	6.1	0	5.7	0	6.4	0	7.8	0	8.1	0
Feature Type		Riffle		Riffle		Pool		Run		Riffle		Riffle		Pool		Run		Run		Run		Run	
(riffle, run, or pool)																							

**Notes:** Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

**Field Data Sheets for Recreational Use Stream Surveys****Data Sheet B – Site Characterization**

(must be completed for each site)

Date & Time: 10/18/07 7:30 am	Site Location Description (e.g., road crossing): Downstream of road crossing at 2355
Personnel (Data Collectors): Matt Cosby, Lauren Strange	
Current Weather Conditions: Cloudy 60°	Facility Name: Renick WWTF
Weather Conditions for Past 10 days: 4.9 inches of rain	Permit Number: MO 0104019
Drought Conditions?: No drought <input type="checkbox"/> ; Phase I x; Phase II <input type="checkbox"/> ; Phase III <input type="checkbox"/> ; Phase IV <input type="checkbox"/> ; Unknown <input type="checkbox"/>	

**Site Location:**

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)			
Site 01	Easting (UTM X): 553713m	Northing (UTM Y): 4362339m	Horizontal Accuracy: 6.6 <b>PDOP</b>
Site 11	Easting (UTM X): 553818m	Northing (UTM Y): 4362429m	Horizontal Accuracy: 5.0 <b>PDOP</b>

**Photos: See attached photos and descriptions**

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose

**Uses Observed\*:** (Uses actually observed at time of survey.)

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (Include number of individuals recreating, photo-documentation of evidence of recreational uses, etc. Use <i>Data Sheet D- Recreational Use Interview</i> when conducting interviews.)				

**Field Data Sheets for Recreational Use Stream Surveys****Data Sheet B – Site Characterization (continued)****Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input checked="" type="checkbox"/> Rural Residential
<input type="checkbox"/> Campgrounds	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> Fence	<input type="checkbox"/> No trespass sign	<input checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:
Comments: None				

**Evidence of Human Use\*:** (Attach photos and reference in "Photos" section)

<input type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Rope swings
<input checked="" type="checkbox"/> RV / ATV Tracks	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle	<input checked="" type="checkbox"/> Livestock Watering
Comments / Other:				

**Substrate\*:** (These values should add up to 100%.)

% Cobble	10% Gravel	10% Sand	% Silt	80% Mud/Clay	% Bedrock
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**Aquatic Vegetation\*:** (Note amount of vegetation or algal growth at the assessment site)

None
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**Water Characteristics\*:** (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input checked="" type="checkbox"/> Gray	<input checked="" type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.



**Field Data Sheets for Recreational Use Stream Surveys****Data Sheet B – Site Characterization (continued)****Additional Stream Morphology:** (Record isolated pools or other features identified during the survey that may support recreational uses)

Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)

**Comments:** (Please record any additional comments here.)

**Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.**

Surveyor's Signature: \_\_\_\_\_ Date of Survey: 10/18/07

Organization: Pickett, Ray & Silver, Inc. Position: Field Team Leader

# Field Data Sheets for Recreational Use Stream Surveys

## Data Sheet C - Field Survey Results

Waterbody ID: <u>132</u> Site #: <u>5</u>  Estimated Channel Incision: <u>0.6</u> (m) (height between low bank width and water)  GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate <b>PDOP</b> <b>01</b> UTM X: <u>553713m</u> UTM Y: <u>4362339m</u> <u>6.6</u> <b>11</b> UTM X: <u>553818m</u> UTM Y: <u>4362429m</u> <u>5.0</u>  Average Stream Width: <u>5</u> (meters)      Length of Survey Segment: <u>150</u> (meters) (To determine Length of Reach)      (20x average stream width)  Field Staff: <u>Matt Cosby &amp; Lauren Strange</u>														Dissolved Oxygen								
														Date: <u>10/17/07</u> Time: <u>7:30 am</u>								
														Dissolved Oxygen: <u>7.39</u> (mg/L)								
														Dissolved Oxygen: _____ (% sat)								
														Specific Cond: _____ (µS/cm)								
														Water Temperature: <u>15.4</u> (°C)								
Transect Cross-Section																						
01		02		03		04		05		06		07		08		09		10		11		
Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1	>1		>1		>1		>1		>1	0.39	0.29	0.34	0.20		>1		>1	0.55	0.30	0.29	0.25	
2										0.78	0.35	0.68	0.35					1.1	0.44	0.58	0.45	
3										1.2	0.39	1.0	0.52					1.7	0.54	0.87	0.65	
4										1.6	0.45	1.4	0.66					2.2	0.50	1.2	0.46	
5										2.0	0.56	1.7	0.73					2.8	0.51	1.5	0.34	
6										2.3	0.64	2	0.68					3.3	0.60	1.7	0.18	
7										2.7	0.62	2.4	0.65					3.9	0.61	2.0	0.09	
8										3.1	0.51	2.7	0.56					4.4	0.58	2.3	0.05	
9										3.5	0.32	3.1	0.43					5.0	0.51	2.6	0.04	
Right Bank	5	0	6	0	6	0	5	0	6.0	0	3.9	0	3.4	0	8	0	7	0	5.5	0	2.9	0
Feature Type	Run		Run		Run		Run		Pool		Riffle		Riffle		Pool		Pool		Run		Riffle	

**Notes:** Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.  
 Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)  
 Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)  
 All measurements to be taken to the nearest 0.01 meter.

**\*Pictures for Transect 11 without dry-erase board (have pole in them)**

**WBID# 132**



**Site# 1 Photo ID# 1-D, Downstream Transect 1**



**Site# 1 Photo ID# 1-U, Upstream Transect 1**



**Site# 1 Photo ID# 11-D, Downstream Transect 11**



**Site# 1 Photo ID# 11-U, Upstream Transect 11**



**WBID# 132**



**Site# 2 Photo ID# 1-D, Downstream Transect 1**



**Site# 2 Photo ID# 1-U, Upstream Transect 1**



**Site# 2 Photo ID# 11-D, Downstream Transect 11**



**Site# 2 Photo ID# 11-U, Upstream Transect 11**



**WBID# 132**



**Site# 3 Photo ID# 1-D, Downstream Transect 1**



**Site# 3 Photo ID# 1-U, Upstream Transect 1**



**Site# 3 Photo ID# 11-D, Downstream Transect 11**



**Site# 3 Photo ID# 11-U, Upstream Transect 11**



**WBID# 132**



**Site# 3 Photo ID# 5, Low Water Crossing**



**Site# 4 Photo ID# 1-D, Downstream Transect 1**



**Site# 4 Photo ID# 1-U, Upstream Transect 1**



**Site# 4 Photo ID# 11-D, Downstream Transect 11**



**WBID# 132**



**Site# 4 Photo ID# 11-U, Upstream Transect 11**



**Site# 5 Photo ID# 1-D, Downstream Transect 1**



**Site# 5 Photo ID# 1-U, Upstream Transect 1**



**Site# 5 Photo ID# 11-D, Downstream Transect 11**

**WBID# 132**



**Site# 5 Photo ID# 11-U, Upstream Transect 11**



**Site# 5 Photo ID# 11, ATV tracks**